

REMARKS

The Examiner's communication dated August 7, 2006 has been received and carefully considered. In conformance with the applicable statutory requirements, this paper constitutes a complete reply and/or a bona fide attempt to advance the application to allowance. Specifically, claims 13 and 19 have been amended. In addition, detailed arguments in support of patentability are presented. Reexamination and/or reconsideration of the application as amended are respectfully requested.

Summary of the Office Action

Claims 1, 9-12 and 13-14 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bobeczko et al. (U.S. Patent No. 6,557,742).

Claims 1-5, 9-12 and 15-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bobeczko et al. in view of Sanda et al. (U.S. Patent No. 6,851,644).

Claims 6-8 and 19-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bobeczko et al. in view of McBride (U.S. Patent No. 3,756,760).

Statement Concerning Common Ownership

In response to the arguments submitted with Applicant's last response on July 11, 2006, the Examiner indicates that Bobeczko can be properly used as a 35 U.S.C. § 102(e) reference. *See Office Action at page 5.* Applicant notes that Bobeczko is not only used as a § 102(e) anticipatory reference in the most recent Office Action, but is used to reject claims 1-12 and 15-24 under 35 U.S.C. § 103(a). Applicant points out to the Examiner that the subject application and Bobeczko et al. were, at the time the invention of the subject application was made, owned by, or subject to an obligation of assignment to, the same legal entity, namely, Lincoln Global, Inc. Thus, under 35 U.S.C. § 103(c), Applicant respectfully requests the Examiner withdraw the 103(a) rejections against claims 1-12 and 15-24. *See MPEP § 706.02(l)(2).*

Claims Distinguish Patentably Over the Reference(s) of Record

Claim 1 calls for a drive roller comprising a hub rotatably received on the wire feeding mechanism, the hub having an outer surface. The drive roller of claim 1 further

comprises a plating on the hub's outer surface. In rejecting claim 1, the Examiner indicates that Bobeczko discloses a wire feeding mechanism comprising a drive roller 34 including a hub having an outer surface and a coating 36 on the outer surface. *See page 2 of the Office Action.* The Examiner further indicates that the wire feeding mechanism of Bobeczko comprises "the plating 34..." *See page 3 of the Office Action.* It is unclear to Applicant how element 34 of Bobeczko can be both a drive roller and a plating when claim 1 calls for a drive roller comprising a hub having an outer surface and a plating on the outer surface.

As discussed in detail in Applicant's last response, Bobeczko discloses a drive roller 34 including a hub 35 and a flexible outer cover 36. Bobeczko states the following in reference to the outer cover 36:

Cover 36 is made from a material having a relatively low compressive yield strength, preferably plastic or rubber, so that the cover and thus outside surface 48 thereof will deflect or deform and thus conform to the cross-sectional contour of a wire W in response to the compressive forces generated as the wire extends between opposing drive rollers 34, as is illustrated with respect to one of the rollers in FIG. 5A.

(Col. 8, lines 24-31). The purpose for adding the flexible cover 36 to the drive roller 34 is also disclosed in Bobeczko et al. as follows:

Such conformity increases surface area contact and support between the drive rollers and the wire thus promoting the desired frictional force to advance the wire, and also eliminates the deformation of wire resulting from the use of steel rollers as shown in FIG. 10A and discussed above.

(Col. 8, lines 31-36).

Responding to Applicant's arguments concerning Bobeczko and its lack of a plating, the Examiner states the following in the most recent Office Action:

In regards [to the, sic] argument that the word plating does not encompass a rubber or [sic] plastic material as disclosed by Bobeczko, the subject application defines plating as being a plating or coating on page 4 of the specification. Plating is [sic] does not mean nor is it defined as meaning a hard metal. Plastic would be encompassed by plating or coating.

Office Action at pg. 5. After a detailed review of page 4 of the specification of the subject application, Applicant strongly urges that the Examiner is mistaken. The first full paragraph on page 4 of the subject application, which generally parallels claim 1, indicates that a drive

roller, in accordance with one aspect of the present invention, includes a hub and an outer surface, and a plating on the outer surface of the hub. The second full paragraph on page 4 generally parallels independent claim 12 and recites a drive roller in accordance with another aspect of the present invention that includes a hub having an outer surface with a plating on the outer surface. Finally, the last paragraph on page 4, beginning at line 20, parallels independent claim 13 and calls for a wire feeding mechanism in accordance with yet another aspect of the present invention. The wire feeding mechanism of this paragraph includes a drive roller including a hub having an outer surface and "one of a plating and a coating on the outer surface." There is no recitation in this paragraph or anywhere on page 4 of a plating "being a plating or a coating." The Examiner's response to Applicant's previously presented argument is unsupported by the citation to page 4 of the specification. Moreover, the indication that the subject application defines "plating as being a plating or coating" is incorrect. How a plating is a plating or a coating simply lacks support and the Examiner's interpretation of the same is entirely unclear.

In the quoted section from page 5 of the Office Action, as provided above, the Examiner indicates that plating is not recited by Applicant to mean nor is it defined as meaning a hard metal. Applicant has not advanced such an argument so Applicant need not address this statement by the Examiner. Rather, Applicant previously argued and continues to assert that Bobeczko fails to disclose or fairly suggest a plating on a drive roller. While there is disclosure of a "flexible outer cover 36" that is "preferably plastic or rubber," there is no disclosure of a plating in Bobeczko. Applicant continues to assert that the word or limitation "plating" does not encompass, read upon, or remotely connote a flexible rubber or plastic material as disclosed or fairly suggested by Bobeczko. Applicant simply asserts that a plating, as recited in claim 1, is not a flexible cover, as disclosed or fairly suggested by Bobeczko.

The Examiner appears to be attempting to oversimplify Applicant's argument by stating that a plastic would be encompassed by plating or coating. Applicant strongly disagrees. First, claim 1 only calls for a plating. Second, Applicant contends that the plating of claim 1 does not read upon the "flexible outer cover 36" of Bobeczko. The fact that the flexible outer cover 36 of Bobeczko is "preferably plastic or rubber" does not eliminate the disclosure of Bobeczko that the outer cover 36 be flexible. Thus, whether the outer cover 36 of Bobeczko is plastic or rubber, it is irrelevant to the disclosure of

Bobeczko that discloses the outer cover 36 as being a "flexible outer cover." Applicant's argument is simply that a limitation "plating" of claim 1 does not read upon, nor is fairly suggested, by the disclosure of a flexible outer cover in Bobeczko.

For at least these reasons, Applicant respectfully asserts that claim 1 and claims 2-11 dependent therefrom patentably distinguish over Bobeczko. For the same reasons, Applicant also respectfully asserts that claim 12 and claims 15-24, which are dependent from claim 12, also patentably distinguish over Bobeczko.

As indicated in the preceding Summary section, claims 1-5, 9-12 and 15-18 were additionally rejected as being obvious over the combination of Bobeczko and Sanda. Specifically, the Examiner asserts that Sanda teaches a drive roller having a plating on its outside surface made of chrome, citing col. 6, lines 1-5 and 38-46 of Sanda. The Examiner further asserts that it would have been obvious to modify the alleged plating of Bobeczko to include chromes as allegedly suggested by Sanda, "to reinforce with a hardness layer for continuous contact," citing col. 5, lines 61-67 of Sanda. Applicant respectfully submits that one skilled in the art would not be motivated to modify the teaching of Bobeczko with those of Sanda. More particularly, Bobeczko is directed to a drive roller having a flexible cover that has a relatively low compressive yield strength for purposes of conforming to the shape of a wire driven by the drive roller. Quite simply, no one skilled in the art would be motivated to modify the wire feeder drive roller of Bobeczko et al. to add a plating thereon in view of the respective disclosures of Bobeczko and Sanda. Adding the plating of Sanda would defeat the purpose of the flexible cover taught by Bobeczko.

As brought forth in Applicant's previous response, Applicant is unsure if the Examiner is asserting that the flexible cover of Bobeczko have the chrome plating of Sanda added on top or instead of the flexible cover. In either case, Applicant respectfully asserts that one skilled in the art would not be motivated to modify the drive roller of Bobeczko with the teachings of Sanda. The purpose of the flexible cover is to reduce the compressive yield strength of the material in contact with the wire so it seems disingenuous to allege that one skilled in the art would be likely to modify this arrangement with a chrome coating that would have the opposite effect on the drive roller, i.e., to increase the compressive yield strength of the surface contacting the wire and eliminate the desired deformation attribute of the flexible cover taught by Bobeczko.

Responding to Applicant's arguments, on page 6 of the recent Office Action, the Examiner indicates that Sanda teaches adding a chrome hardness reinforcer layer (citing col. 5, lines 61-66) added on top of the flexible cover for ensuring sufficient physical intensity of the roller body (citing col. 6, lines 10-11). Sanda does indeed teach forming a hardness reinforcing layer 32 of either ceramics or cermit that is deposited on a surface of a roller body 31 by a method of thermal spraying. *See col. 5, lines 61-65 of Sanda.* With respect to ensuring sufficient physical intensity of the roller body, the Examiner appears to be citing or quoting Sanda out of context. Sanda states that the roller body 31 is not limited to stainless steel but can be selected from metals having sufficient hardness for being cut and scraped with a complicated partial shape. Specifically, Sanda states that in view of ensuring sufficient physical intensity of the roller body 31, soft metal is preferably used. *Sanda, col. 6, lines 10-11.* The choice of a soft metal for the roller body 31 is in no way disclosed as having anything to do with the hardness reinforcing layer 32. Further, it is entirely disingenuous for the Examiner to rely on Sanda for a teaching of adding a chrome hardness reinforcing layer 31 onto a flexible cover. Sanda simply teaches using a soft metal for the roller body 31, not a flexible cover. The roller body 31 is first disclosed as being formed from a rod of stainless steel, but is not limited to being formed of stainless steel. The use of a soft metal as being an alternate material for forming the roller body 31 does not lend itself as a flexible cover, such as the flexible cover taught by Bobeczko.

For all the foregoing reasons, Applicant respectfully asserts that claim 1 and claims 2-11 dependent therefrom are in condition for allowance. Likewise, Applicant respectfully submits that claim 12 and claims 15-24 dependent therefrom are in condition for allowance.

Claims 22-24 stand rejected as being obvious over the combination of Bobeczko and McBride. However, these claims are all dependent, either directly or indirectly, from dependent claim 18 which was rejected over the combination of Bobeczko and Sanda. It is respectfully submitted that claims 22-24 cannot be rejected solely over the combination of Bobeczko and McBride when dependent claim 18, the parent claim from which claims 22-24 depend, is rejected solely over the combination of Bobeczko and Sanda.

Claims 6-8 and 19-24 were rejected over the combination of Bobeczko and McBride. Applicant asserts that the combination of McBride and Bobeczko, which was used to reject claims 6-8 and 19-24 as allegedly being obvious, is improper. As indicated above, Bobeczko is concerned with providing a drive roller on a wire feeder with a flexible outer

cover that is made from a material having a relatively low compressive yield strength, preferably plastic or rubber, so that the cover and thus the outside surface 48 thereof will deflect or deform and thus conform to the cross-sectional contour of the wire W in response to compressive forces generated as the wire extends between opposing drive rollers 34. McBride teaches a roller 18 having a layer 28 of a resilient material such as rubber and a relatively thin, hard shell 30 of metal such as nickel encasing the rubber layer 28 for flexure therewith. The Examiner asserts that it would have been obvious to modify the alleged plating of Bobeczko et al. to include nickel as suggested by McBride, to provide flexure (citing Col. 2, line 67 of the '760 McBride patent (*emphasis added*)).

Applicant respectfully asserts that the alleged motivation, i.e., to provide flexure, is specious and does not show why one skilled in the art would modify the flexible cover 36 of Bobeczko to be formed of nickel or to have a nickel coating added thereon. Line 67 of McBride merely states that nickel encasing the rubber will flex when the rubber layer flexes. There is simply no indication that adding a nickel coating to a wire feeder drive roller is desirable. The drive roller 18 of McBride is used in an apparatus for producing plastic sheet material such as is frequently used by the greeting card industry (Col. 1, lines 1-5). The purpose of the nickel coating on the rubber layer in McBride is specified as enabling a more uniform finish to be imparted to the drive roller than has heretofore been possible (see Col. 3, line 67 - Col. 4, line 2). This motivation for adding a nickel coating to a wire feeder in a plastic extrusion apparatus is inapplicable to the drive roller of a wire feeder apparatus. More particularly, the drive rollers in a wire feeder are used to move an electrode wire to a welding operation. While degradation of the welding wire is not particularly desired, the appearance, and therefore the surface finish of the rollers, need not be so uniform as to allow for a polished finish to be imparted thereto, a primary reason for adding nickel in McBride (see Col. 4 of McBride at lines 5+).

The Examiner asserts that the purpose of not lowering the quality or condition of the plastic material is one that "is very much applicable to the drive roller of a wire feeding apparatus." This statement is entirely conclusory and not supported in any way. Applicant respectfully requests the Examiner provide support for his statement.

Accordingly, for all of these reasons, Applicant respectfully submits that the combination of McBride with Bobeczko et al. is improper and the obviousness rejections against claims 6-8 and 19-24 should be withdrawn.

Claim 13, as amended, calls for a wire feeding mechanism to have a drive roller including a hub having an outer surface and one of a plating or a hardened coating on the outer surface. Claim 13 was rejected as being anticipated by Bobeczko. In particular, the Examiner indicates that Bobeczko teaches a coating 36 on an outer surface 50 of a drive roller 34. For the reasons already discussed herein, Applicant respectfully asserts that Bobeczko fails to disclose a plating. Applicant now further asserts that Bobeczko fails to disclose a hardened coating. Rather, as already discussed at length, Bobeczko discloses a cover 36 made from a flexible material having a relatively low compressive yield strength, preferably plastic or rubber, such that the cover and thus outside surface 48 will deflect or deform about Y or W. There is simply no disclosure of a plating or a hardened coating in Bobeczko.

For at least this reason, Applicant respectfully submits that claim 13 and claim 14 which is dependent from claim 13 are in condition for allowance.

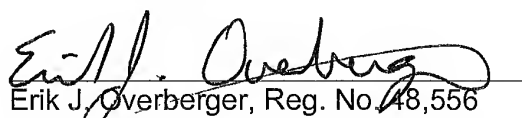
CONCLUSION

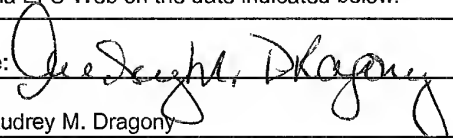
All formal and informal matters having been addressed, it is respectfully submitted that this application is in condition for allowance. It is believed that the claim changes clearly place the application in condition for allowance, defining over any fair teaching attributable to the references of record. Alternatively, if the Examiner is of the view that the application is not in clear condition for allowance, it is requested that the Examiner telephone the undersigned for purposes of conducting a telephone interview to resolve any outstanding differences. Accordingly, an early notice of allowance is earnestly solicited.

Respectfully submitted,

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October 23, 2006
Date


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